

specimens (*V. carolinensis*) have 5 whorls with a maximum diameter of 10 mm". Under *V. carolinensis wetherbyi* Ckll., he says:—"In the report of the expedition of 1899 the specimens of *V. carolinensis* were found to belong to a small race, ranging from $5\frac{1}{2}$ to 7 mm. in diameter. Cockerell has since distinguished it under the above varietal name". . . . "It is intermediate between typical *V. carolinensis* and *V. indentata*." From this it would seem that shells from say $7\frac{1}{2}$ mm. up to 10 mm. diameter are *carolinensis* and under 7 mm. diameter are var. *wetherbyi*, and as there is nothing said to the contrary it is safe to assume that the variety is umbilicate.

Under the above differentiation by size the only *carolinensis* in my collection are 5 specimens collected by the late Mrs. Geo. Andrews at Cranberry, Avery Co., N. C.; they are narrowly umbilicate. All of the balance are either "Var. *wetherbyi*" or the new species described above.

Cockerell says that *carolinensis* has about 26 grooved lines on the body whorl, my three largest Cranberry shells have 38, 34 and 32 respectively, while a $6\frac{1}{2}$ mm. diameter shell from Mitchell Co., N. C., (labeled *carolinensis* by A. G. Wetherby) has 35 and a $6\frac{1}{4}$ mm. shell from Paint Rock, N. C. has 32 lines.

THE NATIVE OYSTERS OF OYSTER RIVER, DURHAM, N. H.

BY C. H. BATCHELDER.

A natural bed of native oysters has persisted in Oyster river, Durham, New Hampshire, ever since the settlement of the town in 1635. This persistence of the oysters is interesting in view of the fact that they have been fished almost constantly. A superficial survey of the beds reveals the following very general information.

The beds are found in from six to fifteen feet of water at low tide, in the channel of the stream, which varies from five to about twenty yards in width, and the bed extends along this channel for a half mile, in such quantities that one can rake a bushel easily in less than an hour. I am confident however, that the bed extends into deeper water for half a mile beyond

this. Wild oysters are also found on ledges and boulders at the half-tide mark along the entire river bank for a distance of two miles. A few of these fail to survive the exposure in winter but where *Fucus* fronds cover them completely and they are not molested they often grow to six inches in length. In these situations they are subjected to protracted low temperatures during the winter months and a short season for the growth of the "spat". The water temperature in the mouth of September drops to the vicinity of 15° C. by the 30th. In the middle of October the temperature is down to 12° C. and by the middle of November down to 8° C. The density of the water varies between 1.015 and 1.0225. The "spat" first appeared, or perhaps more correctly, were first discovered on the twelfth of October. At this time they were about 6.5 mm. in diameter. On November 23 they were again measured and were about 11.5 mm. Notes and specimens taken at this time were only for idle curiosity and are not absolutely reliable.

The only enemies beside man that I know of are the boring sponge and *Urosalpinx cinerea*. Inquiry and repeated examination have failed to discover the presence of the starfish or any of the commensal crabs and I believe they fail to ascend the river as far as the Durham beds. The beds are entirely self-propagating. No attention is ever paid to the need of the "spat"; and clean shells or stones for their attachment have never been placed in the river. I have never heard of the oysters having been taken for commercial purposes, but many are gathered for "home consumption".

THE NEW MEXICAN EXPEDITION OF 1914—ASHMUNELLA.

BY H. A. PILSBRY AND JAS. H. FERRISS.

[Continued from p. 16.]

ASHMUNELLA TETRODON P. & F.

In the type lot the diameter varies from 12.8 mm. with $5\frac{1}{4}$ whorls to 15 mm. with $5\frac{1}{2}$ whorls. This is the usual range of variation in size. In stations 75 and 71 all are rather small, in the former from 12 to 14 mm.—mostly about 13 mm., and at